

REMARKS

Claims 1-4 and 6-9 are pending in this application. By this Amendment, claims 1 and 6 are amended. No new matter is added because the amendments to the claims are supported at least by the claims as originally filed. Claims 5 and 10 are canceled without prejudice to, or disclaimer of, the subject matter recited in those claims. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 10, indicates that claims 5 and 10 recite allowable subject matter. Specifically, the Office Action indicates these claims would be allowable if rewritten in independent form including all the features of the base claim and any intervening claims. Applicant appreciates this indication of allowability. The amendments to claims 1 and 6 are undertaken partially in view of this indication of allowability.

The Office Action, in paragraph 5, rejects claims 1-4 and 6-9 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,698,187 to Nishioka et al. (hereinafter "Nishioka") in view of U.S. Patent No. 6,532,733 to Tamura et al. (hereinafter "Tamura"). This rejection is respectfully traversed.

The amendments to claims 1 and 6 to incorporate the indicated allowable subject matter of claims 5 and 10, respectively, render the above rejections moot.

Applicant's disclosure, particularly in steps S14 and S15 depicted in Fig. 4, describes the subject matter of the pending claims where it states that "if it is determined that the catalytic temperature is not equal to or higher than the predetermined temperature, the process proceeds to step S15 where the ECU 15 changes from the prospective S concentration of the fuel. In this case, the estimated fuel sulfur concentration that has been estimated in step S13, for example, is substituted for the prospective S concentration of the fuel" (page 10, lines 10-15). The description goes on to indicate that "[f]or example, the counter value of the S amount flowing into the NOx catalyst 8 is corrected based on the, for example, the estimated

fuel sulfur concentration, the difference between the estimated fuel sulfur concentration and the prospective S concentration of the fuel and the like" (page 10, lines 18-21). These steps address a difficulty that when the temperature of the exhaust catalyst increases, the sulfur constituent that has been held in the catalyst may be released. The accuracy of the detection of the sulfur concentration of the exhaust gas that is discharged from the cylinders is lower since a concentration detection unit detects the sulfur constituent that has been released from the catalyst. As a result, the accuracy of estimation of the sulfur concentration of the fuel is lowered and an erroneous estimation may concur. In order to address this, the subject matter of claims 5 and 10, as amended respectively in two claims 1 and 6, permits the estimated sulfur concentration to be applied when the temperature of the exhaust catalyst is lower than a predetermined temperature. In this manner, the application of an erroneous sulfur concentration may be prevented.

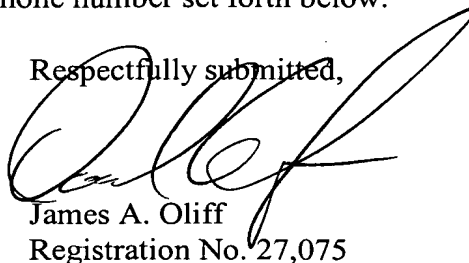
For at least the above reasons, Nishioka and Tamura, in combination, cannot reasonably be considered to have suggested the combination of all the features positively recited in independent claims 1 and 6. Further, claims 2-4 and 7-9 also would not have been suggested by this combination of applied references for at least the respective dependence of these claims on allowable base claims, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-4 and 6-9 as being unpatentable over Nishioka in view of Tamura are respectfully requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-4 and 6-9 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Daniel A. Tanner, III
Registration No. 54,734

JAO:DAT/mcp

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OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

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